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24112	7590	01/25/2005	EXAMINER	
COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602			PHAN, TRI H	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,250

Applicant(s)

CARLSSON ET AL.

Examiner

Tri H. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 15 is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13 and 16-23 is/are rejected.
- 7) ☒ Claim(s) 2 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on September 22nd, 2004. Claims 1-23 are now pending in the application.

Claim Objections

2. Claim 10 is objected to because of the following informalities:

- In claim 10, line 3, the word “a” in front of the phrase “generating a broadcast teleservice message” should be removed for clarifying with the method claimed invention.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-11, 13 and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Faccin et al.** (GPRS and IS-136 Integration for Flexible Network and Services Evolution,

June 1999, Nokia Research Center, IEEE Personal Communications, 1070-9916/99, pages 48-54) in view of **Daly et al.** (U.S.6,393,014).

- In regard to claims 1, 16 and 21, **Faccin** discloses in Figs. 2-5 and in the respective portions of the specification about the method and apparatus for providing the mobile user access to packet data networks, e.g. Internet network, from cellular networks (“*communication network*”; For example see Figs. 3, 5); wherein the general packet radio service ‘GPRS’ operates with circuit-switched, e.g. the global system for mobile system ‘GSM’ or PSTN “*circuit-switched network*”, for giving access services to their registered mobile user (“*providing communications services to mobile terminals*”; For example see Abstract) to the X.25 or Internet network (“*packet-switched network*”; For example see Figs. 3,5; page 49, first paragraph of ‘The GPRS System’ section), which have services with request to attach to the selected service networks, and converts media between different protocols (For example see page 50; 11th paragraph; **Faccin** does not explicitly disclose about “*first/second messaging protocols*”; however, it is obvious that the signaling/media has to have appropriate protocol in order to transport over the corresponding network, e.g. “*first messaging protocols*” for the circuit-switched network and “*second messaging protocols*” for the packet-switched network, or vice versa, by using the interworking function, e.g. “*formatter*”, in the Short message service-Interworking mobile switching center ‘SMS-IW MSC’, e.g. “*interworking function*”, for example see Figs. 3, 5). **Faccin** does disclose about the different interfaces between the SMS-GMSC and SMS-IW MSC with the BSS via the E and A interface for the circuit-switched network (“*first interface*”), or with the SGSN, GGSN, etc. via Gd, Gn interface for the packet-switched network

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(“*second interface*”) disclosed in Figs. 3, 5; page 49-50, ‘The GPRS System’ section, as claimed in claim 16; and where the SMS-GMSC and SMS-IWMSC (“*broadcast message center*”) incorporated with the Short message switching center ‘SM-SC’ for transporting short messages (“*broadcast messages*”) to/from mobile stations, but fails to explicitly disclose about the messages being “*teleservice*” messages. However, such implementation is known in the art.

For example, **Daly** discloses in Figs. 2-6 and in the respective portions of the specification about the system and method for the mobile station communicating with which network it is registered, e.g. cellular or IP networks, converting between protocols and transferring data (For example see Figs. 2, 4; Abstract; col. 3, lines 15-55; col. 6, lines 38-57) by using the interworking in the MSC as disclosed in col. 5, lines 42-45; and about the Teleservice Server (“*broadcast teleservice message center*”) incorporated with the enhanced server for generating notifications and data messages over-the-air to the registered mobile station (“*generating broadcast teleservice message*”; For example see Figs. 2-4; col. 5, lines 16-50) by the use of the message handler application in the teleservice server (“*broadcast message application*”; For example see col. 4, line 44 through col. 5, line 15) as claimed in claim 21.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Daly**, by implementing the Teleservice Server for generating teleservice messages in the **Faccin**’s SMS-GMSC and SMS-IWMSC, with the motivation being to provide the ability to transporting the teleservices from the Internet network to the mobile station on a non-IP network as disclosed in **Daly**: col. 1, lines 8-10.

- Regarding claims 3-4, 7, 11, 17, 19 and 22, **Faccin** further discloses about the SGSN in the GPRS network and the Base transceiver station 'BTS' in the Base station subsystem 'BSS' for transporting data with point-to-multipoint support or IP multicast to/from mobile users or terminals ("*General Packet Radio Service*", "*Serving GPRS support node*", "*point-to-multipoint services*"; For example see Figs 3, 5; pages 49, paragraphs 1-6 of 'The GPRS System' section; page 53, 'New IP Services'; page 54, paragraph 8 in 'Future Evolution' section).

- In regard to claims 5-6, 8-9, 13, 18, 20 and 23, **Faccin** further discloses about the different interfaces such as A, E, C, Gb, Gs, Gd, Gn, Gp, Gi, Gc between the SMS-GMSC/SMS-IW MSC with BSS or GSM MSC or SGSN or GGSN ("*Gm*", "*Gn*"; For example see Figs. 3, 5).

- Regarding claim 10, **Faccin** discloses in Figs. 2-5 and in the respective portions of the specification about the method and apparatus for providing the mobile user access to packet data networks, e.g. Internet network, from cellular networks ("*communication network*"; For example see Figs. 3, 5); wherein the general packet radio service 'GPRS' operates with circuit-switched, e.g. the global system for mobile system 'GSM' or PSTN "*circuit-switched network*", for giving access services to their registered mobile user ("*providing communications services to mobile terminals*"; For example see Abstract) to the X.25 or Internet network ("*packet-switched network*"; For example see Figs. 3,5; page 49, first paragraph of 'The GPRS System' section), which have services with request to attach to the selected service networks, and converts media between different protocols (For example see page 50; 11th paragraph of 'The GPRS System' section; **Faccin** does not explicitly disclose about "*first/second messaging protocols*"; however,

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it is obvious that the signaling/media has to have appropriate protocol in order to transport over the corresponding network, e.g. *“first messaging protocols”* for the circuit-switched network and *“second messaging protocols”* for the packet-switched network, or vice versa, by using the interworking function in the Short message service-Interworking mobile switching center ‘SMS-IW MSC’, e.g. *“interworking function”*, for example see Figs. 3, 5). **Faccin** does disclose about the SMS-GMSC and SMS-IW MSC (*“broadcast message center”*) incorporated with the Short message switching center ‘SM-SC’ for transporting short messages (*“transmitting broadcast messages”*) to/from registered mobile users (*“mobile terminals having service with”*) through different networks such as packet-switched network such as Internet, X.25, Intra/Inter-PLMN backbone network and circuit-switched network such as Global System for Mobile ‘GSM’, PSTN; but fails to explicitly disclose about the messages being *“teleservice”* messages. However, such implementation is known in the art.

For example, **Daly** discloses in Figs. 2-6 and in the respective portions of the specification about the system and method for the mobile station communicating with which network it is registered, e.g. cellular or IP networks, converting between protocols and transferring data (For example see Figs. 2, 4; Abstract; col. 3, lines 15-55; col. 6, lines 38-57) by using the interworking in the MSC as disclosed in col. 5, lines 42-45; and about the Teleservice Server (*“broadcast teleservice message center”*) incorporated with the enhanced server for generating notifications and data messages over-the-air to the registered mobile station by the use of IS-136 teleservice/protocol (*“generating broadcast teleservice message”*; For example see Figs. 2-4; col. 5, lines 16-50).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Daly**, by implementing the Teleservice Server for generating teleservice messages in the **Faccin's** SMS-GMSC/SMS-IWMSC, with the motivation being to provide the ability to transporting the teleservices from the Internet network to the mobile station on a non-IP network as disclosed in **Daly**: col. 1, lines 8-10.

Allowable Subject Matter

5. Claims 2 and 12 are objected to as being dependent upon a rejected base claim (claims 1 and 10), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 14-15 are allowed. The following is an examiner's statement of reasons for allowance:

Claims 14-15 are considered allowable since when reading the claims in light of the specification, none of the references of record-alone or in combination disclose or suggest the combination of limitations specified in the independent claims including.

Substantially regarding claim 14, the prior art of record fails to disclose the method for delivering subchannel data transmitted over the circuit-switched network to the mobile terminal having service with the packet-switched network, which comprises assigning a group identification numbers to sub-channels used by the service provider to transmit sub-channel data

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for the circuit-switched network, transmitting the group identification numbers assigned to the sub-channels to mobile terminals registered with the packet-switched network in the first broadcast teleservice message having the group identification field and the data field, wherein the group identification numbers assigned to the sub-channels being contained in the first broadcast teleservice message data field, and the group identification number for the corresponding service provider being contained in the first broadcast teleservice message group identification field; and transmitting sub-channel data to mobile terminals registered in the packet-switched network in the second broadcast teleservice message having the group identification field and the data field; especially, wherein the second broadcast teleservice message group identification field containing the group identification for the selected sub-channel to identify the sub-channel and the data field containing the sub-channel data.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lupien et al. (U.S.6,463,055 and U.S.6,389,008), **Lager et al.** (U.S.6,636,502), **Gaffney** (U.S.6,333,919) and **Chander et al.** (EP 1117264A2) are all cited to show devices and methods

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for improving data transmission on the packet-switched from cellular radio network in the telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
January 13, 2005


BRIAN NGUYEN
PRIMARY EXAMINER

1/19/05